

SOIL CONSERVATION SERVICE

KENTUCKY

FISHPOND MANAGEMENT (No.)

399

STANDARD

- Definition -

Developing or improving impounded water to produce fish for domestic use or recreation.

- Purpose -

To improve or maintain fish production and fishery use by making a favorable water habitat, supplementing natural food supplies, and reducing competition from unwanted plants and animals.

- Conditions Where Practice Applies -

In ponds, lakes, and reservoirs where a crop of fish is wanted.

SPECIFICATIONS

A. Making a favorable water habitat.

1. Manipulating pH.

Fishes grow best in water that has a pH between 6.5 and 9. If the pH remains consistently below 6.5 and greater productivity is wanted, raise the pH by applying agricultural limestone at the rate of 2 tons per surface acre.

When fertilization is to be practiced also, apply the limestone in late fall or early winter so it will have time to react with the water and the bottom mud before the fertilizer is applied the following spring.

(Note: Liming may not be economically feasible if the pH is below 5.)

Spread the limestone in the shallow water around the edge of the pond.

If the pH of the water in a pond remains consistently higher than 9, lower it by applying ammonium sulfate at the rate of 100 pounds per surface acre. Repeat this application as often as needed throughout the year.

2. Clearing muddy water.

Particles of colloidal clay can be made to flocculate and settle to the bottom of the pond by applying one of the following:

- (a) Gypsum at the rate of 525 pounds per acre-foot of water.
- (b) Seven to 10 broken bales of hay per surface acre.
- (c) Seventy-five pounds of soybean meal and 25 pounds of super-phosphate per surface acre.

3. Fertilizing

To increase productivity through fertilization apply 16 pounds of 21-53-0 fertilizer per surface acre until plankton growth is so dense that a white dinner plate or similar disk lowered into the water disappears at a depth of 18 inches.

Begin fertilization in early April when the surface water temperature reaches 60°F. Repeat the application every 2 weeks until the proper density of plankton has been achieved. Then repeat as often as needed to maintain that density.

Stop fertilizing at the end of the normal growing season. This occurs around the middle of October.

If the fertilizer is in a fine granular form that dissolves rapidly upon contact with water, apply it by broadcasting it over the surface of the pond.

If, instead, the fertilizer is in coarse granules that sink to the bottom before they completely dissolve, dump it onto a wooden platform built a few feet from shore. Build the platform so its top is just beneath the surface of the water at normal pool level.

B. Supplementing natural food supplies.

This portion of the specifications applies to ponds stocked with channel catfish alone. Productivity can be increased by artificial feeding.

Use a pelleted, commercially-available fish food, and feed 6 days a week at the rate of 1 percent of the body weight of the fish when the water temperature is between 45° and 60°F, 2 percent when the temperature is between 60° and 70°F, and 3 percent when it is above 70°F.

Adjust these feeding rates as needed to ensure that all food is consumed within 2 hours after it is offered.

C. Reducing competition from unwanted plants and animals.

- 1. Control unwanted plants by doing one or more of the following:

- (a) Deepening the pond edges to a minimum of 3 feet.
 - (b) Cutting
 - (c) Pulling
 - (d) Fertilizing
 - (e) Treating with a herbicide that has been registered for use in waters that contain fish that may be used for human food.
2. Control unwanted fish by either completely draining the pond or by applying a fish toxicant to eradicate either all or part of the population.

Use only toxicants that have been registered for use in water that contains fish that may be used for human food.